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CLAIMS

What is claimed is:

1. A pharmaceutical composition for treatment of Parkinson's disease comprising a compound of levodopa dissolved in a non-degradative solvent which allows transdermal
5 administrtion of levodopa.

2. A pharmaceutical composition according to claim 1 and wherein said compound of levodopa is an alkyl-ester of levodopa and said solvent is a formulation comprising a substantially non-aqueous solvent, a transdermal enhancer and a detergent.

3. A pharmaceutical composition according to claim 2 wherein said alkyl-ester of
10 levodopa is levodopa-ethyl-ester (LDEE).

4. A pharmaceutical composition according to claim 2 wherein said non-aqueous solvent has at least one of the following properties: non-toxic and non-irritant.

5. A pharmaceutical composition according to claim 2 wherein said non-aqueous solvent is propylene glycol.

15 6. A pharmaceutical composition according to claim 2 wherein said transdermal enhancer is also a stabilizer.

7. A pharmaceutical composition according to claim 2 wherein said transdermal enhancer is a carboxylic acid.

8. A pharmaceutical composition according to claim 7 wherein said carboxylic
20 acid is selected from the group consisting of propionic acid and butanoic acid.

9. A pharmaceutical composition according to claim 2 wherein said detergent is selected from the group consisting of sodium laurylsulphate, sodium deoxycholate and their derivatives.

10. Apparatus for transdermal delivery of a substance for treatment of Parkinson's
25 disease, said apparatus comprising:

a storage compartment containing therein a fluid for transdermal treatment of Parkinson's disease; and

a dermal patch in fluid communication with said storage compartment, said dermal patch being attached to a portion of skin of a patient, wherein said fluid flows from said
30 storage compartment to said dermal patch and is thence transdermally delivered to said patient.

11. Apparatus according to claim 10 wherein said dermal patch comprises a plurality of hollow capillaries for flow of said fluid therethrough to the skin of said patient.

12. Apparatus according to either of claims 10 and 11 and wherein said storage compartment is compressible by mechanical pressure.

13. Apparatus according to ~~any~~ of claims 10 - 12 and comprising a regulating valve for controlling flow of said fluid from said storage compartment to said dermal patch.

14. A method for treatment of Parkinson's disease, comprising the step of transdermally administering a levodopa drug in a stable solution.

15. A method according to claim 14 wherein said step of transdermally administering said levodopa drug comprises substantially continuous transdermal penetration of levodopa.

16. A method according to claim 14 and wherein said levodopa drug comprises an alkyl-ester of levodopa.

17. A method according to claim 14 and wherein said solution comprises a substantially non-aqueous solvent, a transdermal enhancer and a detergent.

18. A method according to claim 14 and wherein said levodopa drug and said solution are stored separately and mixed just before transdermally applying said drug.

19. A method according to claim 14 and further comprising the step of ingesting carbidopa before commencing transdermal delivery of said levodopa drug.

20. A method according to claim 14 and further comprising the step of ingesting carbidopa during transdermal delivery of said levodopa drug.

21. A method according to claim 14 and further comprising the step of receiving an oral anti-parkinson's drug.

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